PREDICTION OF FINANCIAL DISTRESS COMPANIES ON BURSA MALAYSIA - AN EXAMINATION OF PN17 COMPANIES

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CHHOA SIEW PHIN

A dissertation submitted in partial fulfillment of the requirements for the degree of Corporate Master in Business Administration

Faculty of Economics and Business
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2010
APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion it conforms to the acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a research paper for the degree of Corporate Master in Business Administration.

Dr. Mohamad Bin Jais
Supervisor

This research paper was submitted to the Faculty of Economics and Business, UNIMAS and is accepted as partial fulfillment of the requirement for the degree of Corporate Master in Business Administration.

Professor Dr. Shazali Abu Mansor
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DECLARATION OF COPYRIGHT

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I hereby declare that this research is the result of my own investigation, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references and a bibliography is appended.

Signature

Date : 26/7/10

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ABSTRACT

Under the provisions of Practice Note 17, issued by the Bursa Malaysia on 3 January 2005, 31 public listed companies as of 5 April 2008, after fulfilling the criteria of PN17, were classified as financially distressed companies. The failure or bankruptcy of financially distressed companies is a serious threat to the many economic agents holding an interest in the distressed companies, namely; shareholders, managers, employees, bankers and clients. Business failure involves not only many parties but large cost (both direct and indirect) as well. The main purpose of this paper is therefore to use financial variables to predict potential financially distressed firms using the logistic regression model. Then the predictive ability of the prediction model was analysed and the findings are encouraging and consistent for the sample analysed and the period of study. The results demonstrate that profitability; liquidity and leverage ratios are among the most significant ones.

Key words: PN17, Financial distress, Logistic model, Predictive power.
ABSTRAK


Kata penyelesaian : PN17, Kewangan keduakaan, model logit, kekuatan predikat
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVAL PAGE</td>
<td>ii</td>
</tr>
<tr>
<td>DECLARATION OF COPYRIGHT PAGE</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENT</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td>vi</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vii</td>
</tr>
<tr>
<td>CHAPTER 1: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2: LITERATURE REVIEW</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER 3: DATA COLLECTION AND METHODOLOGY</td>
<td></td>
</tr>
<tr>
<td>3.1 The Stock Market</td>
<td>17</td>
</tr>
<tr>
<td>3.2 Bursa Malaysia</td>
<td>18</td>
</tr>
<tr>
<td>3.3 Definition of Financial Distressed Firm</td>
<td>18</td>
</tr>
<tr>
<td>3.4 Sample Selection</td>
<td>21</td>
</tr>
<tr>
<td>3.5 Independent Variables and Hypothesis</td>
<td>23</td>
</tr>
<tr>
<td>3.5.1 Profitability</td>
<td>24</td>
</tr>
<tr>
<td>3.5.2 Liquidity</td>
<td>25</td>
</tr>
</tbody>
</table>
3.5.3 Financial Leverage .................................................... 26
3.5.4 Operating Efficiency (Activity Ratio) .......................... 28
3.6 The Logit Model ......................................................... 29

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Descriptive Statistics .................................................. 33
4.1.1 Profitability Ratios .................................................. 34
4.1.2 Liquidity Ratios .................................................... 36
4.1.3 Financial Leverage Ratios ........................................ 38
4.1.4 Activity Ratio (Operating Efficiency) ......................... 41
4.2 Confirmation From Logit Regression ............................... 42

CHAPTER 5: CONCLUSION .................................................. 45

REFERENCE
CHAPTER 1: INTRODUCTION

The diagnosis and prediction of the potential and impending failure or bankruptcy of financially distressed companies has been a focal issue in finance over the past three decades due to the enormous costs, both direct and indirect, which are associated with the distress or failure. As several stakeholders are relying on a firm's success, any substantial decline in the market value of a distressed firm may inflict negative shocks for each of the stakeholders and, therefore, the total (economic and social) cost of business failure may be large. Due to its 'contagion-effects', the costs of the failure of a firm with a large network of related companies may cause a downward spiral for the whole economy of a country (Laitinen and Kankaanpaa, 1999) and, as such, company failure may have an important consequences with respect to the employment and the economic welfare.

As a result, prediction of company financial health is important not only from an individual point of view, but also to the society as a whole.

Financial distress, which usually precedes bankruptcy, has a higher probability to declare bankruptcy. Though many of these firms strive to survive through reorganisation exercises, acquisition, or privatisation (Theodossion et al., 1996). While Gilbert et al. (1990) explains that financial dimensions that distinguish
bankrupt from healthy firms are different from those that separate bankrupt from distress firms.

Thus, it requires a pre-emptive tool to identify and indemnify the potential financial distress.

The present global economic malaise and financial market vulnerability, have made it crucial for parties external to the firm namely; investors, creditors, investment advisors, investment managers, auditors, government regulators and other stakeholders to identify as early as possible firms that are headed for financial difficulty. Thus, it requires a pre-emptive tool to identify and indemnify the potential financial distress that could help the firms to address the potential problems and activate pre-emptive measures to overcome the potential distress/failure.

Private entities, who are seeking for an accurate failure prediction model so as to enable them to take preventive/corrective actions in firms that are predicted to fail in the future, and by the Government, who aims to detect bad performing companies and to take corrective actions in order to prevent failure (Keasey and Watson, 1991).

Hence, the focus and discussion of this issue is becoming more pertinent as the global financial scenario is becoming more and more volatile and fragile, with the increase in the number of corporate failure across the globe.

The results of this paper thus, could be relevant and useful for private entities (investors, banks, employees) and governmental institutions for assessing firm’s financial condition.
The literature on global financial downturns does provide some insights on signals of the impending crisis (Krugman, 1999). For example, Bongini et al. (2000) suggest that the vulnerabilities in corporate financial structures have been an important factor in triggering and aggravating the 1997 Asian financial crisis and leading many corporations to bankruptcy. Pomerleano (1998) offers a financial distress perspective by tracing the crisis to the characteristic of corporate finance of Asian countries. He compares corporate financials of Asian countries with those of other countries such as industrialised countries and finds that excessive investment, excessive borrowing and low profitability underlying corporate finance of most Asian countries. Hence, he concludes that financial excesses of Asian countries have led to financial distress and eventually the crisis. Claessens et al. (1998) also attribute the combination of high investment, low profitability and high leverage of East Asian countries to the crises.

The objective of this paper is therefore to predict the impending financial distress of a firm through the examination of financial ratios that distinguish “healthy” from “financially troubled” companies on PN17 companies on the Bursa, in Malaysia as at 5 April, 2008.

PN17 companies are those companies that have sought protection under section 176 of the Company Act 1965 in Malaysia and/or have been approved by the regulatory body to undertake restructuring process within a stipulated time frame to address their financial distress and thus predict the probability of eventual bankruptcy. Up to date, except for Zulkarnam et al. (2001), Fauzias and Chin (2001) and Mohamad Isa Hussain et al. (2005), there is no other documentation on the application of business
failure prediction models in the Malaysian corporate environment. These studies were based on the legal bankruptcy definition of S176 of Malaysian Companies Act 1965, and analysed small samples of 24 to 30 failed firms, respectively. This has implications on the validity and universal applicability of the results.

The availability of a reasonable sample of financial distress companies provide an excellent opportunity for the construction and the testing of a financial distress prediction model using the logistic model approach.

The prediction of corporate failure is based on the pretext that there are consistent, identifiable trends or symptoms for all distressed companies and that distress is a gradual process. These symptoms of distress might be manifested in the form of declining profits, working capital, liquidity, arrears interest and loan repayment, delay in payment to suppliers, staffs and other creditors. The consistent changes in these common symptoms have prompted studies to identify and to address the potential failures of Malaysia financially distress firms and to take corrective measures to avoid and/or minimize the cost of failures on cases where failure is inevitable.

The informative capability of accounting ratios will be analysed and compared in order to identify the preliminary symptoms of a distress condition of a “failing” company. The main hypothesis of this study is that the preliminary symptoms of a distress condition can be elicited and seen in financial ratio dynamics, through the financial statement analysis.
Among the most famous works in this field is Beaver’s empirical study (1966) and Altman’s empirical researches (1968). Beaver in his seminal paper, showed evidence that healthy firms ratios and failing firms ratios were strongly different in the five years prior to the bankruptcy events. And, this difference increases approaching the bankruptcy events. While Altman used the discriminant analysis technique applied to financial ratios implementing a scoring system to discriminate healthy firms from failing one through a statistical function [Altman 1968, pp 590-598].

Then, the application of the business failure prediction model, Logistic model approach was used. The predictive ability of the model was analysed which could help to identify the potential distress so as to enable pre-emptive measures to be taken in order to mitigate the potential distress or to minimize the costs associated with the failure of firm in situation where it is inevitable.

Although one could expect that independent auditors or other decision makers are able to make a correct assessment concerning the financial health of firms ("going concern" or "clean" qualification), research has shown that, in practice, they do not perform as well as failure prediction models in classifying companies as failing (Altman and Saunders, 1998; Keasay and Watson, 1991). Hence, failure prediction models have been proven necessary in order to obtain a more accurate assessment of a firm’s financial health.

The evolution in the availability of data and statistical techniques has offered increased possibilities for research concerning corporate failure prediction. The progress in quantitative sciences – mathematics, statistics, applications in informatics
and artificial intelligence – has provided a large range of quantitative techniques, which can be used for the development of failure prediction model (Chariton et al. 2004). Many company data have become publicly available, which allows researches to use large computer databases of standardized company financial information. Moreover, the use of failure prediction models may reduce the information asymmetry between stakeholders and a company’s management.

In this study, all the companies, 29 (excluding 2 firms from the financial sector) in total as of 5 April, 2008 that sought protection under Section 176 of the Companies Act 1965 and/or approved by the regulatory body to undertake restructuring exercise of the firms financial condition were taken and the financial statements of each company was analysed for the period from 2003-2007 for 5 years before the distress.

The results of this paper as was mentioned above, could be relevant and useful for private entities (investors, banks, employees) and Government Institutions for assessing firm’s financial condition.

This rest of the paper is organised as follows. Chapter 2 discusses the literature review of financial ratios and the financial distress prediction model. Chapter 3 provides the definition, sample selection, independent variables used, data collection and research methodology. Chapter 4 presents the results and discussion on the findings while Chapter 5 concludes the paper, summarises the main findings of this paper, its implications and suggestions for future study.
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CHAPTER 2 :-

LITERATURE REVIEW

Financial distress prediction became a critical accounting and finance research area since 1960s. These studies had not predictive goals but they aimed to identify the difference between "healthy firms" (non-distress firm) ratios and "failing firms" (distress firm) ratios.

While there are abundant studies describing prediction models of corporate bankruptcy, few research efforts have sought to predict corporate financial distress. The lack of work on financial distress results was partially contributed by the difficulty in defining objectively the onset of financial distress. On the contrary, the bankruptcy date is definitive and financial data prior to that date are reasonably accessible. As a consequence of the difficulty in determining the cut-off date of when a firm becomes financially distressed, most research that purportedly focus on financial distress instead examines the terminal date associated with the company's filing for bankruptcy protection (Frydman et al., 1985; Theodossiou et al., 1996). In addition, these definitional difficulties contribute the lack of success of prior empirical efforts regarding financial distress.
The research of the prediction of financial distress has been categorized as the unstructured types of studies, particularly exploratory studies, which are inductive and aim to construct a theory, based on the observation of the analyzed phenomenon. After the development of a theory, a study will be designed to test the theory.

The lack of the established theory in the field had provoked application of different and non-homogeneous financial ratios. The models developed by various authors have been adapted to the country and industry specific characteristics. All those factors affected the lack of synchronization between the different models proposed by the researchers.

The investigations of corporate failure usually implement binary classification of the distressed firms. Managing different methodologies, researchers aim to classify observations into distinguished groups – distressed or non-distressed companies, using financial ratios and/or other characteristics of the companies as variables in a determined period of time.

The next problem that is centered in the researchers' investigation is to establish empirically, those financial ratios, which ought to be reduced in order to minimize the prediction error.

There are diverse view by researchers with regards to the causes of financial distress, some are of the view that the causes for distress are mainly external, than internal and for that they propose the application of macroeconomic variables. While others consider that
different industries could present characteristics involving high grades of failure. Accordingly, they propose estimation of bankruptcy prediction models referred to sector specifications.

Nonetheless, all the investigations utilize a common static methodology, consisting of estimation of the models separately with data for the financial situation on the last (1-10) years prior to failure. Practically all of the empirical results of the different models coincide with their estimation that the distressed companies have significantly different characteristics from the non-distressed ones for the period under reviewed. However, behind these similarities the analysis of the corporate failure lacks a unified theory and common set of indicators (financial or economic ratios), which are independent of the model possess predictive capabilities applied in all the models. In the absence of a theory that provides testable hypotheses, each empirical result thus, has to be evaluated on its own merits. Although there are some efforts to create theoretical constructions in failure prediction context, but none unified theory has been generally accepted as a basis for the theoretical ratio selection.

An important consideration in all the bankruptcy prediction models is that the analysis and the comparison of the different groups of distressed firms require the data to be matched by country, industry type, dimensions of companies and periods of the investigation. All these prerequisites contribute to the representative validity.